

NEW THINKING ABOUT THINKING

| SPRING 2024 |



BLAKE SHELTON



EVAN FUNKE



WOLFGANG PUCK

POWER
OF
LOVE

G A L A 2 0 2 4

SEE PAGE 5
FOR MORE
DETAILS



DIRECTOR'S MESSAGE

February 18, 2024 marked 30 years since Lou Ruvo died of Alzheimer's disease. Caring for their patriarch — his family's labor of love — inspired his son, Larry, to do something about Alzheimer's disease that could spare other families the pain the Ruvos experienced.

Three decades later, thanks to research conducted right here in the building that bears Lou's name, my fellow neurologists and I can offer even more hope to other families.

Last summer, I told a patient that I suspected she had a neurodegenerative disease. I recommended further testing to specifically identify the cause of her memory loss. She said, "But finding out what it is doesn't really make a difference in treatment, right?"

I hesitated for a moment, perhaps as surprised as she was about the words that I then said to a patient for the first time in my career: "Actually, there is a new treatment for people with Alzheimer's disease." (See page 3.)

Clinical availability of anti-amyloid antibodies — the first disease-modifying drug for Alzheimer's disease — certainly won't solve the dementia challenge, but it is a major step forward. A handful of months have gone by during which I've made essentially the same statement to dozens of patients. This news has not gotten old. I hope it never will.

THE ABILITY TO DO SOMETHING STARTS WITH KNOWLEDGE

At Cleveland Clinic Lou Ruvo Center for Brain Health, we place a strong emphasis on education.

Knowing what to expect helps families plan for the journey of brain disease — and take steps to maximize brain health.

We offer daily programming for patients and care partners: support groups, skill-building classes, wellness offerings and more. Read what that means to these individuals (see page 17). Thanks to generous donors, it's all available at no cost to participants.

We've earned designations for excellence that include funding for ongoing research (see page 11), and not just on Alzheimer's disease (see page 13).

Thanks to our robust research program, we continue to study the effects of treatments for years after their approval by the Food and Drug Administration to understand their real-world performance (see page 12). And by studying learnings from one brain disorder, we're able to extend that learning to others (see page 7).

None of this work is possible without philanthropy. When you collaborate with us, you make a difference in our community — for your neighbors, your friends, your family. Use the envelope included in this magazine, join us at the Power of Love® gala on Friday, May 10 or contact us to discuss how we can match your interests with our educational and research needs.

DYLAN WINT, MD

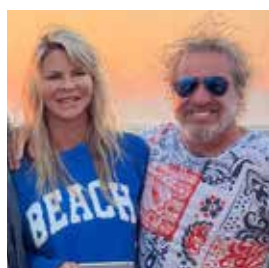
Center Director

*Camille and Larry Ruvo
Chair for Brain Health*

Director, Education

*Las Vegas Legacy
Chair for Neuroscience
Education*

***Cleveland Clinic
Lou Ruvo Center
for Brain Health***



On the back cover:
Dan Harrington receives first infusion of lecanemab. Pictured with wife, Andrea, and service dog, Willow (see page 3).
Photo: Denise Truscello

CONTENTS

■ FEATURES

- 3 “A Significant Step Forward” in Slowing Alzheimer’s Disease
- 5 Celebrating the Power of Lou, Larry and Love

■ CLINICAL RESEARCH UPDATE

- 7 Blood Protein Shows Promise as Biomarker of Neurodegenerative Diseases
- 9 Diverse Care for Today; Diverse Research for Tomorrow
- 11 On the Road to Better Rural Brain Health

■ WORLD CLASS CLINICAL CARE

- 12 Can You “Age Out” of MS Treatment?
- 13 Excellence in Parkinson’s Disease, Right Here in Nevada

■ PHILANTHROPY AT WORK

- 15 Established Rehab Professionals Come to Las Vegas to Enhance Their MS Knowledge
- 17 Philanthropy: The Gift That Keeps on Giving to Patients and Families
- 19 Paying It Forward, One Woman at a Time
- 20 Sex-Specific Differences May Help Explain Why More Women Develop Alzheimer’s Disease
- 22 Honor Wall Preserves the Memory of Person with Alzheimer’s Disease

■ CARING FOR CARE PARTNERS

- 23 Group Music Therapy: A Full-Brain Workout and More for People with Memory Loss
- 25 Is Good Sleep Only a Dream with Dementia?

■ ON THE SCENE

- 27 What is Month of Memories?
- 29 Visitor Photo Gallery
- 31 Raising Funds ‘My Way’ to Keep Memory Alive
- 33 Recognized for Excellence

NEW THINKING ABOUT THINKING



702.483.6000 | clevelandclinic.org/Nevada

Research, treatment and education for patients and families living with brain disorders

ALZHEIMER’S DISEASE	HUNTINGTON’S DISEASE	MULTIPLE SCLEROSIS
FRONTOTEMPORAL DEMENTIA	PARKINSON’S DISEASE	AND NEUROIMMUNOLOGY
LEWY BODY DEMENTIA	ATAXIA AND	
AND OTHER DEMENTIAS	OTHER MOVEMENT DISORDERS	

“A Significant Step Forward” in **SLOWING ALZHEIMER’S DISEASE**

On November 2, 2023, in conjunction with National Alzheimer’s Disease Awareness Month, Cleveland Clinic Lou Ruvo Center for Brain Health administered its first infusion of the anti-amyloid drug lecanemab (LEQEMBI®) for the treatment of mild Alzheimer’s disease.

The recipient was Dan Harrington, 64, who moved to Las Vegas from Southern California six years ago specifically to receive care at the Lou Ruvo Center for Brain Health. Dan was the first to receive the drug at the Lou Ruvo Center for the Center in a clinical setting following lecanemab’s July approval from the U.S. Food and Drug Administration. He and his wife, Andrea, are grateful for the opportunity to try this new treatment.

NEW HOPE FOR PATIENTS AND FAMILIES

“Since I started in this field 20 years ago, patients and their families have often said, ‘If this is Alzheimer’s, you can’t even slow it down, right?’ Today I can say, ‘Wrong. Now, there’s a treatment for this disease that is different from anything previously available,’” says Dylan Wint, MD, Director, Lou Ruvo Center for Brain Health.

“This drug can’t solve the dementia crisis but it represents a significant step forward, slowing progression of Alzheimer’s disease and delaying some of its devastating symptoms versus simply managing current symptoms,” Dr. Wint adds.

“We’re really excited about this,” says Andrea Harrington. “If it slows the progression of Alzheimer’s disease by a few months, then we can continue to make memories, enjoy what we have and do what we can for a few more months. We’re really grateful.”

She continues, “There’s so much hope. If sharing our experience can help somebody else and let them know that there is hope, that’s what we’ll do.”

YOU, TOO, CAN GIVE HOPE.
give.ccf.org/NTAT



[Continue the story online:
clevelandclinic.org/DanandAndrea](https://clevelandclinic.org/DanandAndrea)

Getting AHEAD of Alzheimer’s Disease

The Lou Ruvo Center for Brain Health is the only site in Nevada participating in the AHEAD Study, a clinical trial that aims to continue making progress by testing whether an investigational treatment, lecanemab, can delay or prevent symptoms of Alzheimer’s disease before they begin.

Learn more: clevelandclinic.org/NevadaResearch

Contact us: 702.701.7944 or healthybrains@ccf.org



"This whole experience is about my mother, who passed away from Alzheimer's disease, missing a decade of good living. By enrolling in this trial, I'm hoping to help other people who are hesitant or maybe ignoring symptoms. It's a wonderful and promising experience."

– **Verna Peterson**, AHEAD Study participant



"I come from a family that has a lot of females who carry the gene for getting dementia. So I was looking for something that could help me and, if not me, then for my daughter and her daughters. It's about family, and this is my small part in helping my family. I also saw they didn't have a lot of Black participants enrolled in clinical trials, so that was another reason I volunteered. My participation can help doctors see how it affects a person of another race, and maybe it will help someone else along the way."

– **Brenda Harris-Carter**, AHEAD Study participant

CELEBRATING

THE POWER OF LOU, LARRY AND LOVE

In 1994, when Lou Ruvo died of Alzheimer's disease and his son, Larry, set out to spare other families similar devastation, Larry's journey was powered by love, but supported by little hope in the near-term. Now, 30 years later, patients at the center that bears Lou's name can choose to be prescribed lecanemab, the first fully-approved disease-modifying therapy for early-stage Alzheimer's, or to participate in new applications of the drug through clinical trials (see page 3).

On Friday, May 10, friends old and new will be gathering at the MGM Grand in Las Vegas for the 27th annual Power of Love® gala. We encourage you to join us, because funds raised will benefit ongoing research and family care at Cleveland Clinic Lou Ruvo Center for Brain Health. Our highly anticipated evening of friendship and philanthropy will feature performances from a list of notable artists, as well as live and silent auctions with truly priceless products and experiences, so many of which are available only at the Power of Love.

We will honor Blake Shelton for an impact even greater than his music: his philanthropy. Nevadans who have witnessed Larry Ruvo's impact on his hometown know well the difference once man with a dream can make.

Please join us on Friday, May 10 and help us continue to dream about a future where brain disorders are but a memory.



HONORING BLAKE SHELTON

Country music's unapologetic ambassador, Blake Shelton, will be honored for his remarkable two-decade career filled with boot-stomping bangers, heartbreak anthems and endearing odes to love gone wrong and right. Recently wrapping his hugely successful "Back To The Honky Tonk" tour, Blake Shelton's impact extends beyond the stage to NBC's four-time Emmy Award-winning musical competition series "The Voice." With 52 million singles and 13 million albums sold and nearly 11 billion global streams, Shelton has received numerous awards, including six ACMs, three AMAs, 10 CMAs, 11 CMTs and six People's Choice, among many others.



EVAN FUNKE

Evan Funke is a culinary storyteller, a custodian of Italian tradition and a master of the old-world techniques of handmade pasta. He brings nearly two decades of excellence to Mother Wolf at Fontainebleau Las Vegas. He is known for his three highly-acclaimed restaurants in Los Angeles, has been featured in numerous on-screen productions, and is also the author of award-winning cookbook *American Sfogolino*.



WOLFGANG PUCK

Combining classic French techniques with California and Asian influences, Wolfgang Puck has changed the face of dining in cities throughout the nation. Starting in Los Angeles, then in Las Vegas, where he was the first celebrity chef to create a contemporary fine dining restaurant, he paved the way for the city's metamorphosis into an acclaimed dining destination. Cooking at the very first Power of Love in 1996, he has been with us ever since.

KEEP MEMORY ALIVE &  Cleveland Clinic

PRESENT



GALA 2024

JOIN US ON FRIDAY, MAY 10.

You are the power behind our promise to families and to our community.

We encourage you to buy a seat, table or ad. Bid on auction items. Every investment makes a big impact in our ability to sustain the Lou Ruvo Center for Brain Health's important work.

This not-to-be-missed event will sell out. Get your tickets today: keepmemoryalive.org/POLnt or 702.263.9797

If you're not receiving our monthly events update via email, sign up at clevelandclinic.org/NVnews.

SPONSORED BY:



Blood Protein Shows Promise as Biomarker OF NEURODEGENERATIVE DISEASES

New research from Cleveland Clinic Lou Ruvo Center for Brain Health suggests that changes in levels of glial fibrillary acidic protein (GFAP) in the blood over time may help identify athletes who are developing neurodegenerative changes as a result of repetitive head impacts.

In a study of 420 active and retired boxers and mixed martial arts (MMA) fighters in the center's Professional Athletes Brain Health Study, researchers found that retired fighters with rising GFAP levels showed:

- Decreasing volume in regions of the brain important for memory and thinking (hippocampus, thalamus, anterior cingulate).
- Worsening performance on cognitive tests assessing memory, processing speed, psycho-motor speed and reaction time.

Though more research is needed, published findings suggest that GFAP could be a much-needed biomarker of neurodegenerative diseases and might become part of the evaluation for TES, the current research diagnostic criteria aimed at identifying who may be more likely to develop CTE.

AN URGENT PUBLIC HEALTH CONCERN

Identifying GFAP as a possible biomarker for individuals at risk of neurodegeneration from repetitive head impacts is one of the most significant findings to date of the Lou Ruvo Center for Brain Health's Professional Athletes Brain Health Study. With more than 900 participants since its inception in 2011, the study is uniquely positioned to make these discoveries.

"The results of this latest research mark an important step in our study's overall goal to detect progressive brain changes early, when interventions may help prevent further damage in susceptible individuals," says neurologist Charles Bernick, MD, the study's Principal Investigator.

Researchers recognize CTE as a public health concern, given the prevalence of contact sports participation among today's youth as well as the risk to soldiers

exposed to blast injuries and to others who might experience repetitive head trauma, such as victims of domestic violence.

+ Continue the story online:
clevelandclinic.org/GFAP

"We have been supporting the Professional Athletes Brain Health Study since its inception. Top Rank's ongoing involvement in this program helps ensure health and safety for athletes today and in the future."

– **Todd duBoef**, President,
Top Rank, Inc.

This important research is made possible by generous donor support. Your compassion fuels our curiosity. Contact us at DonateNevada@ccf.org, 702.262.9797 or give.ccf.org/NTAT.

IDENTIFYING RISK FOR DECLINING BRAIN HEALTH

2005

First published evidence of CTE in an athlete

2021

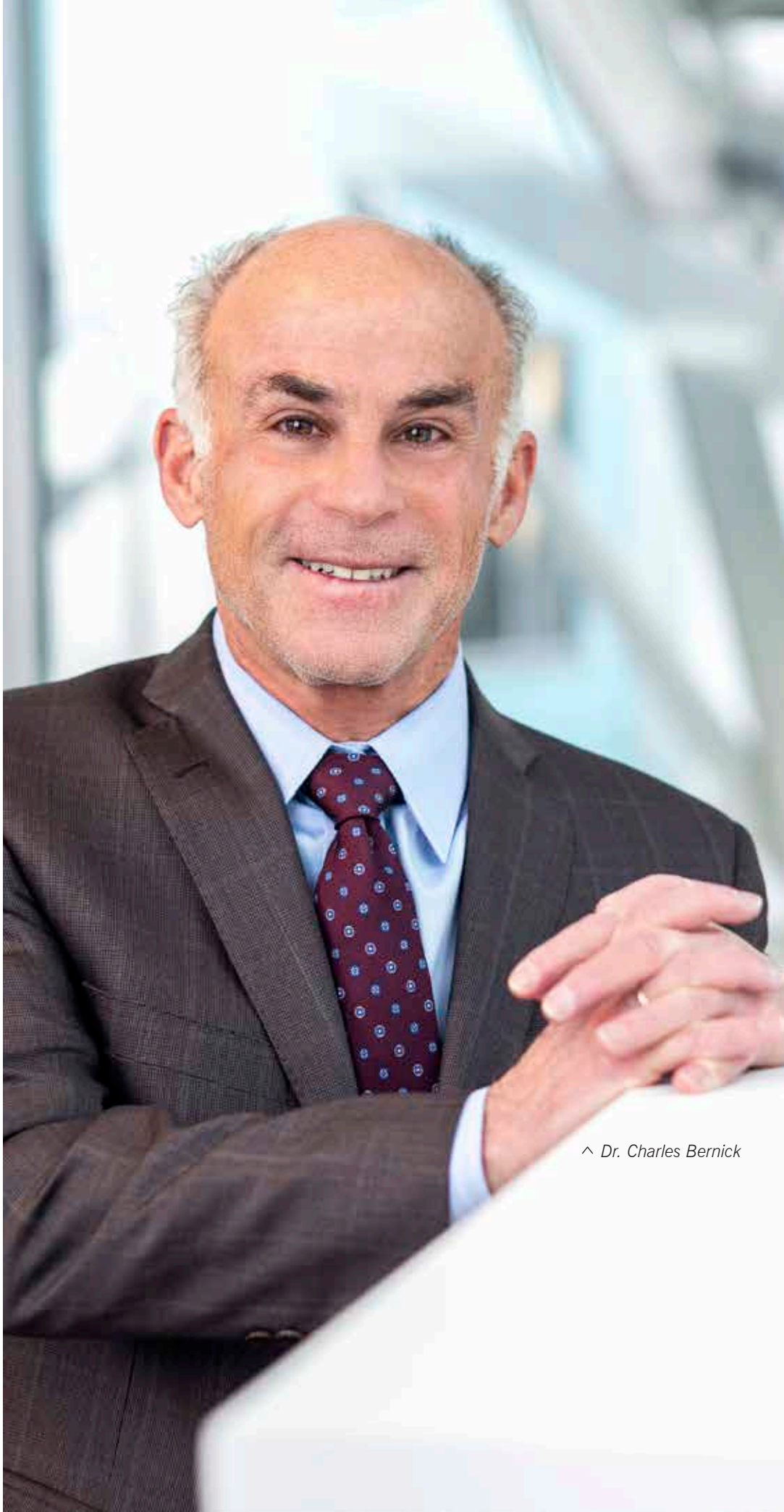
Physician-scientists from the Lou Ruvo Center for Brain Health contribute to establishing consensus around diagnostic criteria for TES. Their work is published in the peer-reviewed journal *Neurology*.

JUNE 2023

Cleveland Clinic researchers publish in *Neurology* the first longitudinal study of the 2021 criteria for TES among at-risk individuals. Findings illustrate that the diagnostic criteria can identify a group likely to have worsening brain volume changes and cognitive performance over time.

OCTOBER 2023

Lou Ruvo Center for Brain Health researchers show in *Alzheimer's Research & Therapy* that changes in GFAP in the blood over time may help identify athletes who are developing neurodegenerative changes as a result of repetitive head impacts.



^ Dr. Charles Bernick

What is chronic traumatic encephalopathy (CTE)?

CTE is the term for the brain disease that neuropathologists can see in individuals who have been exposed to repetitive head trauma. Those with CTE have deposits of tau protein in a characteristic pattern including the regions that govern behavior, emotion and executive function.

Currently, CTE can be diagnosed only after death, which presents a challenge for physicians evaluating brain health in athletes in a clinical setting.

What is traumatic encephalopathy syndrome (TES)?

TES is believed to be the clinical presentation of CTE. TES is characterized by:

- Substantial exposure to repetitive head impacts.
- Core clinical features of progressive cognitive impairment and/or neurobehavioral dysregulation, such as explosive temper or irrational actions.
- Inability to fully account for signs and symptoms by other diagnoses.

These three criteria must be met for a diagnosis of TES, after which the individual's level of functioning is graded, including evaluation for dementia.

Diverse Care for Today; DIVERSE RESEARCH FOR TOMORROW

Just as we're seeing increasing diversity among people living with the degenerative brain diseases we study and treat at Cleveland Clinic Lou Ruvo Center for Brain Health, the National Institutes of Health (NIH) continues to update its viewpoint on how the diversity of our nation's population impacts health, noting on its website:

"Our health is a combination of physical and mental well-being, which is affected by our behavior, biology, environment, societal policies and, importantly, our lived experiences. The lived experiences of people in the United States vary based on their race and ethnicity, socioeconomic status, geographic location, sexual orientation, gender identity and other sociodemographic characteristics.

"To account for the diverse lived experiences and exposures of various populations, clinical research should be appropriately inclusive of racial and ethnic minority groups, as well as other populations experiencing health disparities, including sexual and gender minority or socioeconomically disadvantaged populations."

At the Lou Ruvo Center for Brain Health, we echo the NIH's commitment to diversity in research. Research is the key to developing new approaches to treatment and a better long-term outlook for the brain health of all members of our community. Below are some of our clinician-scientists' perspectives.

We urge you to share yours by participating in our clinical research program.



"Although Black women are twice as likely and Hispanic women 1.5 times as likely as White women to get Alzheimer's disease, most research today lacks diverse samples that can help us to understand and reduce these risks. This means the patient in front of me holds key information from lived experience that a scientific journal can't give me, and I can't just be an expert; I must be a listener and collaborator in lifestyle change."

Jessica Z.K. Caldwell, PhD

*Neuropsychologist and Director,
Women's Alzheimer's Movement
Prevention Center at Cleveland Clinic*



"The lack of diversity in clinical research is a broad-based and regrettable shortcoming. College-educated White Americans comprise 95 percent of all clinical research participants. Yet, Black Americans are roughly twice as likely as Caucasians to develop Alzheimer's disease or another form of dementia. Increasingly, we're realizing the applicability of certain biomarkers of disease varies across demographics. Amyloid tests may be inaccurate in some Black individuals with Alzheimer's disease, and the APOE4 gene may be less predictive in Black people than in White."

Dylan Wint, MD

Cognitive Disorders Neurologist

Behind every data point is a person

You can help us better understand brain health among people of all backgrounds in our community.

LEARN MORE:

clevelandclinic.org/NevadaResearch or 702.701.7944.



"My goal is to ensure scientific results we generate apply to everyone regardless of race, sex, ethnicity, gender identity and sexual orientation or where you live, so our research results can be truly beneficial for people of all backgrounds living with the diseases we study and treat."

Justin B. Miller, PhD

*Neuropsychologist and
Director, Research Operations*



"Now in its 13th year, our Professional Athletes Brain Health Study represents men and women of assorted ethnicities who come from all over the world. Many are from urban cores and lower socioeconomic backgrounds, who might otherwise never participate in research. While they're all different, they share a concern for brain health, and that's inspiring."

Charles Bernick, MD

*Cognitive Disorders Neurologist and
Principal Investigator, Professional
Athletes Brain Health Study*



"Historically, the field of multiple sclerosis (MS) leaned towards biology being the lead factor for racial differences in MS disease outcomes. However, growing evidence has helped us realize that these differences are more likely related to social determinants affecting inequalities in health. As clinicians, it is our responsibility to address these disparities. We strive to educate our diverse community on the importance of self-advocacy and shared commitment to addressing modifiable risk factors."

Carrie M. Hersh, DO, MSc

Multiple Sclerosis Neurologist



"Some of the patients I see have systemic cultural biases to overall care, which delays diagnosis. My approach is to listen and educate them on their treatment options, including nonpharmacological therapies such as physical and occupational therapy."

Odinachi Oguh, MD

Movement Disorders Neurologist



"None of us exists in a vacuum. We are shaped by our experiences, identity, background and culture. Consequently, I endeavor to be sensitive to how these factors may impact one's expression of symptoms and, relatedly, our diagnosis, care and treatment."

Shehroo B. Pudumjee, PhD

Staff Neuropsychologist



"Multiple sclerosis is a disease of everyone and our care needs to be reflective of the individual in front of us. To ensure our treatment approaches can help individuals of all backgrounds, we need our clinical research population to reflect the breadth of the population that has MS. Diversity has typically been focused on race and gender. Now, we're increasingly looking at age, too." (See page 12)

Le Hua, MD

Multiple Sclerosis Neurologist

On the Road to BETTER RURAL BRAIN HEALTH

Research has shown that rural-dwelling adults are at increased risk for Alzheimer's disease and related dementias but are underrepresented in aging research. Specifically:

- The relative risk for dementia is 80% higher for those living in rural communities.
- Survival following diagnosis is often shorter compared with residents of urban communities.

Yet, research out of the Nevada exploratory Alzheimer's Disease Research Center (NVeADRC) — a National Institutes of Health (NIH)-funded program led by researchers at Cleveland Clinic Lou Ruvo Center for Brain Health — is shedding new light on the positives of aging in a rural community.

UNEXPECTED RESULTS

In a study of more than 200 Nevadans, researchers found that rural-dwelling seniors outperformed their urban counterparts on verbal learning and memory assessments.

The surprising data, recently published in the peer-reviewed journal *Frontiers in Dementia*, suggests that, for some, choosing rural life may be beneficial and promote brain health.

More research is warranted to understand the memory advantage but Justin B. Miller, PhD, director of

the NVeADRC, theorizes it could be due to an array of factors, including:

- Reduced exposure to pollution.
- Stronger sense of community.
- Greater access to outdoor recreation and green space.
- Reduced stress.

In Nevada, where 10% of the population is spread across roughly 90% of the state's land mass, accessing healthcare can be logistically challenging for individuals living outside the urban cores of Reno and Las Vegas.

"We're in a unique position to systematically study aging over time in people who live outside of metropolitan areas because the geography of southern Nevada is rural to frontier," says Dr. Miller. "We're seeking funding to expand our project to be multistate so we can perform large-scale research on factors that differentiate urban and rural dwellers."

ROAD TRIP!

In support of our NVeADRC's mission, clinician-scientists and research and community outreach teams hit the road in October, traveling to Lake Havasu, Arizona, to share some of the latest brain health science that might soon be accessible to all, regardless of geography.

Dylan Wint, MD, Director, Lou Ruvo Center for Brain Health, explained

the potential impact of research on biomarkers: "A simple blood test taken close to home could tell you whether or not you need to go to a major center for further diagnostics."

Community members grabbed materials to take back to local support groups and faith communities, while others shared personal journeys with dementia.

"Knowing which type of dementia they're dealing with can be very helpful for family care partners in trying to understand the symptoms they're witnessing," says Lucille Carriere, PhD, Angie Ruvo Endowed Caregiving Chair.

+ Continue the story online:
clevelandclinic.org/ConsultQDRuralHealth

Your brain, your community

If you live in a rural or non-urban area, you might be able to help us learn more about brain health in your community by participating in research. Visit nvadrc.org/LearnMore or call 702.701.7944 for more information. A stipend will be provided as a courtesy for participation.

"The Hearst Foundations' focus is ensuring people of all backgrounds have the opportunity to build healthy, productive and satisfying lives. That's why we've chosen to support the NVeADRC's delivery of better brain health in rural Nevada."

— Paul "Dino" Dinovitz, Executive Director, The Hearst Foundations



^ Dr. Wint presents in Lake Havasu

Can You “Age Out” of MS TREATMENT?

As we get older, our home medicine cabinets seem increasingly crowded. Is this just the way it's going to be as our bodies age? Perhaps not with multiple sclerosis (MS).

In the past decade, more than 15 disease-modifying therapies have been approved to reduce relapses and thus slow the disability progression of MS. This explosion of treatment options has led to a growing population of older adults living with MS, prompting specialists to increasingly consider how age and disease duration impact MS progression and treatment.

“The revolution of medications has been fantastic,” says Le Hua, MD, Director of the Multiple Sclerosis Program and the Eric and Sheila Samson Chair for MS Research at Cleveland Clinic Lou Ruvo Center for Brain Health, Las Vegas. “People are getting older, they are surviving with less disability, they are doing better. What we don’t want to do is inadvertently keep someone on a medication they no longer really need.”

BALANCING RISK VS. BENEFIT

As MS experts try to better understand the risk-benefit ratio of treatment in older adults, patients are asking, “Will I ever be able to stop this medication?” For those older than 60, the answer may be “yes.”

That’s because individuals with MS experience less inflammation, fewer relapses and less MRI activity as they age. By contrast, the highest rates of MRI activity and clinical relapse occur in people in their 20s through 40s.

Dr. Hua makes her evaluation on an individual basis, weighing negative side effects against symptoms: “I’ll look back and say, ‘Well, you haven’t had a relapse for five or 10 years, and your recent MRIs haven’t shown any change.

I think this might be an opportunity for us to stop medications.”

THE NEED FOR NEUROPROTECTION

Traditionally, MS treatments target the overactive immune system, bringing it back into balance. Yet, additional processes are happening in the brain, prompting MS clinician-scientists to continue their quest to engage the most appropriate therapy based on the specific aspect of the disease the individual patient is experiencing.

“What we really want to study in our older patients is which biological processes are causing clinical worsening, and target treatment accordingly,” Dr. Hua says.

“Rather than treating the immune system, we want to develop therapies that address older people’s reduced ability to protect the brain from inflammation, clear waste products, use energy efficiently and focus on therapies that might help with restoration of function.”

+ Continue the story online:
clevelandclinic.org/ConsultQDAgeOutMS

When evaluating treatment options for older adults, Cleveland Clinic MS providers are now considering:

- MS progression in older adults compared with younger patients.
- The progressive decline in immune function associated with aging.
- Results of studies investigating discontinuation of medication in older adults with MS.
- Diseases and conditions, or “comorbidities,” that may exist in an individual alongside MS and that can lead to declining health.
- The potential for biomarkers, or indicators of disease, to predict treatment response and disease status.

LEARN MORE: To make an appointment with an MS specialist, call 702.483.6000. Learn about research opportunities at clevelandclinic.org/NevadaResearch.



^ Dr. Le Hua with a patient

Excellence in Parkinson's Disease, RIGHT HERE IN NEVADA

In 2022, Cleveland Clinic Lou Ruvo Center for Brain Health was named a Parkinson's Foundation Center of Excellence (PF COE), one of only 51 such sites globally.

This sought-after designation identifies hospitals and academic medical centers with specialized teams — neurologists; movement disorders specialists; physical, occupational and music therapists; and behavioral health professionals — at the leading edge of medications, therapies and innovations for Parkinson's disease. As a team and individually, COEs meet the Parkinson's Foundation's rigorous qualification requirements.

Here is how some of our patients feel about the care they receive.

To make an appointment with the neurology team at our Parkinson's Foundation Center of Excellence, call 702.483.6000. If you're already a patient at our center but interested in additional services, send your neurology team a message via MyChart.



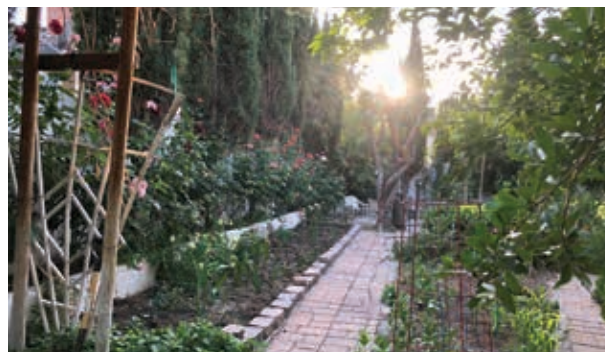
In their words: What a PF COE means to patients

“You need to go to the specialist within the specialty. My primary care doctor thought I had essential tremor. Then I saw a general neurologist who told me I had essential tremor and, a few months later, said no, it's Parkinson's disease.

“I went looking for a third opinion. At Cleveland Clinic, I received so much more than one doctor's viewpoint.

“They administered an evidence-based diagnostic assessment. I also learned the medication I had been on was no longer the standard of care for Parkinson's. We made a change that has enabled me to continue sewing, a hobby that helps manage my Parkinson's by engaging my brain and my fine motor skills.”

— Vivian Eddins



“My husband and I have a big garden, and I love weeding. I assign a name to each one as I pull it out. Out with the bad, release the tension.”

“When I first got my diagnosis, it was gloom and doom. Then someone in support group said to me, ‘Live your life, not your disease.’ Friendship is really important among my Parkinson's people. We understand and help each other out. Now I have friends, and my sense of humor is coming back.

“However, I struggle with hand dexterity. Through occupational therapy, I learned that when my hands don't work properly, I can clench my fists four times quickly and then, voila! From putting on earrings to inserting a key in a lock or opening a plastic water bottle, it's the single most useful trick I've learned.”

— Kathi Badreddine

“Through therapy at Cleveland Clinic, I’ve learned to approach tasks with intent. With Parkinson’s, you no longer have the luxury of not thinking about what you’re going to do. If you’re going to take a step to the left, you have to think about taking that step before you do it. When you’re going to speak, you have to think about speaking up so people can hear you. My speech therapist installed a decibel meter app on my phone that measures the volume of my voice. It’s particularly helpful in loud areas.

“In counseling, we discussed that we’ve all got one life to live, and what we make of it is up to us. As I get older, I think about legacy, and being a positive example to my grandchildren.”

— **Al Moreno**



“I have a tendency to fall forward when reaching down to grab something. In physical therapy, I learned to center my body, keeping my feet planted and bending at the knees. It’s very helpful when picking up my golf ball or tee.”



“As an occupational therapist, I interacted frequently with people living with chronic disease. Yet, I was having trouble accepting my own Parkinson’s diagnosis. Parkinson’s disease is progressive and there’s no cure. It’s ultimately fatal. Through counseling, I realized the difference between giving up, giving in and accepting.”

— **Mary Kuehn**

“Not very many doctors’ offices do research but, here at Cleveland Clinic, I have experts monitoring the progression of my disease. I know I won’t be harmed by being in research, but I also understand it won’t make me any better. However, there will never be a cure without enough research volunteers. I wish more people with Parkinson’s would consider participating.”

— **Jerry Miller**



✓ *Dr. Zoltan Mari, left, with John Lehr, CEO and President, Parkinson's Foundation*



“Disease-modifying therapies that can slow the progression of Parkinson’s disease are desperately needed, and the Parkinson’s Progression Markers Initiative (PPMI) study is an important step in helping us achieve this goal. By identifying indicators of disease progression, we’ll be able to better predict disability and, ultimately, slow or prevent it.

“To be selected as a study site is a milestone achievement not only for our center, but for the broader Parkinson’s disease and movement disorders community in Nevada.”

— **Zoltan Mari, MD, FAAN**, director of our Parkinson’s Foundation Center of Excellence and PPMI site principal investigator

Join Us

Interested in joining our research? Contact us at **702.701.7944** or **healthybrains@ccf.org**.

Established Rehab Professionals Come to Las Vegas **TO ENHANCE THEIR MS KNOWLEDGE**

Although rehabilitation specialists are uniquely positioned to impact the safety, independence and quality of life of individuals with multiple sclerosis (MS) and their care partners, few have the opportunity to spend time in another clinical practice to gain understanding of how they can best collaborate with other specialists to deliver holistic care.

That's where the Foundation of the Consortium of Multiple Sclerosis Centers' (CMSC) Susan E. Bennett MS Rehabilitation Training Program steps in as a matchmaker of sorts between established rehabilitation professionals looking to increase their MS-specific knowledge and comprehensive multiple sclerosis centers that are experts in training, such as the Mellen Program for MS at Cleveland Clinic Lou Ruvo Center for Brain Health, directed by Le Hua, MD.

Our center was one of just three in the nation chosen as a training site for MS

rehab scholars, who came from Alberta, Canada and the Duke University Health System to learn from us about MS care.

LEARNING THE LOU RUVO WAY

Dr. Hua collaborated with Michael Gevertzman, PT, DPT, NCS, a physical therapist who holds a Multiple Sclerosis Certified Specialist designation and championed the center's fall 2023 participation in the training program. The pair created interdisciplinary learning opportunities for the visiting rehabilitation therapists.

The only National MS Society's Partner in Care in southern Nevada and a member of the CMSC, Cleveland Clinic's MS program in Las Vegas cares for 1,500 people, offering an array of clinical services: specialized MS neurology, rehabilitation, psychology and counseling, social work, psychiatry and neuropsychology. Clinician-scientists have been involved in six research studies of recently approved new disease-modifying therapies for MS.





Call Us
 To make an appointment with an MS specialist, contact us at 702.483.6000.

< L-R: Daniel Orme, MD, Samantha Green, and Dr. Le Hua

Visiting scholars share their insights

Jacque Townsend, BMRPT, a physical therapist with 15 years of experience who recently joined a newly formed MS clinic in Calgary, Canada, says, “I came here wanting to make sure I was meeting a standard of care. But it doesn’t just end today. Now, I have a network of fellow MS specialists.”

Samantha Green, MSOT, OTR/L, an occupational therapist at Duke University Health System, was impressed by the significant amount of time clinicians at the Lou Ruvo Center for Brain Health spent with patients, breaking down complex diseases to understandable levels and answering questions: “It’s clear there are real relationships between patients and their neurology providers.”

Maggie Crouch, MS, OTR/L, CSRS, who works for the Duke Health System in an outpatient neurologic clinic, looks forward to taking back to her practice her learning about the role each person can play in MS care: “Navigating a large health system to find interdisciplinary collaborators can be done well.”

Allie Hayman, OTD, OTR/L, who has been practicing at Duke since earning her occupational therapy degree a year ago, was “inspired by how integral the neurology providers at Cleveland Clinic see the role of rehab in their patients with MS.”



^ L-R: Jacque Townsend, Samantha Green and Dr. Michael Gevertzman coach a patient



^ L-R: Dr. Michael Gevertzman, Maggie Crouch and Allie Hayman

Philanthropy: THE GIFT THAT KEEPS ON GIVING TO PATIENTS AND FAMILIES

Living with a brain disorder is a journey, and our team at Cleveland Clinic Lou Ruvo Center for Brain Health is here to guide you along the way.

Thanks to robust philanthropic support from generous donors, we provide a broad range of programs and services that individuals, families and care partners can access at no cost during their quest to become more informed, connected and supported, thus improving coping skills and quality of life.

Here's how gifts of all sizes are helping participants in our educational, therapeutic and support programs.

Take the next step toward better brain health

- Sign up for our newsletter to receive a monthly calendar of free programs in your inbox: clevelandclinic.org/NVnews
- Learn more: clevelandclinic.org/NVprograms
- Questions? 725.277.6266 or louruvoswgroup@ccf.org

Make a difference in our community. For your neighbors, your friends, your family.

GIVE NOW: give.ccf.org/NTAT

CONTACT US: 702.263.9797 or DonateNevada@ccf.org

“Through the online support group, I learned we all have drama, whether it’s visible or not. Embrace it and move on. Appreciate every part of life and lean on your support team, whomever they may be.”

Reneé Martinez, who has multiple sclerosis (MS)

“I really look forward each month to Mind in Design. While the artmaking is geared toward people of all abilities, I still feel my brain growing with the challenge of the class and the new knowledge imparted to us by the art instructor. The best part is the feeling of peace and accomplishment with every class.”

Barbra Konrad, who lives with MS

“Being able to use the Cleveland Clinic MS transportation program is an extra relief for me and so many people with MS who already have enough challenges. My family and friends work, so it’s difficult for them to drive me. I wouldn’t be able to come to the clinic if it weren’t for the program.”

Key (Kishanna) Marquez, who has MS

“I really enjoy the Rhythmic Rehabilitation class. It’s usually is the most movement I get all week. The songs bring back memories from my childhood and the instruments are fun to play.”

Stephanie L. Barnes, a person with MS

✓ Reneé with her brother, Scott Staub, represent the “Living the Dream” team at the MS Walk in San Francisco





“Yoga for People with Neurological Conditions is the grounding, calming experience I need when my body is so ‘keyed up’ mentally and physically from multiple sclerosis. The chair yoga instructors truly understand neurological disease and modify the poses for each participant’s abilities, helping us achieve maximum functionality. For example, they’ll suggest using a pillow to support my body if I’m experiencing spasticity during class.”

“Lunch & Learn lectures have been a wealth of information, such as the session that showcased assorted power wheelchair options, broadening my horizons as to what was available. MS is a chronic illness I must deal with on an ongoing basis. In support group, I’m not alone in the battle. Everyone gets each other because we’re all going through it.”

Laura Patel, living with MS

“I was always flipping through sticky notes and various calendars to find where I logged things. Through the HABIT Healthy Action to Benefit Independence and Thinking program at the Lou Ruvo Center for Brain Health, I was introduced to a new system of calendaring to keep my thoughts and plans organized.”

“A fellow HABIT participant told me about a YMCA location where I could not only exercise my body via pickleball and a balance class but could also challenge my brain by learning to play new card games. I needed someone else to make that suggestion and inspire me to go seek the activity and socialization we learned through HABIT that we need to keep our brain active.”

Ann Cibulka, who has mild cognitive impairment

“As a care partner, it was worth investing my time to participate in HABIT. It was comforting to meet others helping spouses through day-to-day challenges.”

Mike Cibulka, Ann’s husband



“In Dealing With Dementia, I received a practical, how-to manual that can be my resource throughout the entire journey. I simply look up the issue I’m trying to manage in the moment and turn to the relevant page. Someone in the class recommended what I’ve learned is an excellent tool for caregivers, *The 36 Hour Day*. The book is currently on my nightstand and is a classic in the Lou Ruvo Center for Brain Health’s free lending library, which I often visit when I’m on campus.”

“In support group, I learned, ‘Be kind, not right.’ If your loved one says the sky is green, don’t argue.”

“And in the six-week Powerful Tools for Caregivers workshop, I learned the phrase, ‘The person with dementia isn’t trying to give you a hard time, they’re having a hard time.’ That’s so true, and I try to remind myself to be less critical.”

Karen Wall, caregiver to her father, Robert Brown, who has Parkinson’s disease



Provider’s Perspective

“The Behavioral Health Consent for Therapy form notes that the visits are provided at no cost, thanks to charitable donations. When they learn this, I see tears in patients’ eyes. It is the best news I get to share with them.”

Tiarra Atkinson, LCSW

Behavioral Health Therapist

Senior Clinical Social Worker

Paying It Forward, ONE WOMAN AT A TIME

In July 2023, Jessica Caldwell, PhD, joined diverse presenters for a roundtable, “Mapping Your Path to Independence: An Interactive Toolkit for Early Career Researchers,” at the Organization for Human Brain Mapping’s annual conference. There, just over a decade earlier, she had been eagerly soaking up advice from more senior women in her field while receiving funding, thanks to an educational grant from the organization.

This time, having secured two R01 grants — a prestigious category of funding from the National Institutes of Health — Dr. Caldwell shared some challenges she has overcome as a first-generation college graduate and clinician-scientist. Among them: finding ways to use her deep curiosity and skill with cutting-edge science to make an impact and navigating imposter syndrome, the self-doubt common among high-achieving individuals.



^ Dr. Taylor Fama Levine

A PERFECT PAIR

Given her interest in Alzheimer’s disease’s disproportionate impact on women — who represent two-thirds of people with the disease as well as two-thirds of unpaid caregivers — Taylor Fama Levine, PhD, knew that a neuropsychology fellowship to train under Dr. Caldwell was the perfect opportunity. Dr. Caldwell runs the nation’s only prevention program exclusively for women: the Women’s Alzheimer’s Movement (WAM) Prevention Center at Cleveland Clinic.

Currently, the mentor-mentee pair is studying whether sex differences that Dr. Caldwell observed previously in non-Hispanic White women will replicate across diverse samples.

“Cleveland Clinic Lou Ruvo Center for Brain Health’s dual-prong approach to research and care inspires me,” says Dr. Levine. “With Dr. Caldwell’s expertise and a pool of women patients eager to participate, we’re able to continue revising approaches to care based on the newest science.” (See page 20.)

As the mother of a 2-year old, Dr. Levine appreciates that her mentor is also a working mom. Dr. Caldwell’s advice that has most resonated? “A given day might not be ideal in both scenarios but, overall, you can find a balance that works for you to achieve your personal and professional goals.”

Fellowships at the Lou Ruvo Center for Brain Health are made possible by generous donors. To contribute to educating the next generation of clinician-scientists or supporting current research, please contact DonateNevada@ccf.org, 702.263.9797 or give.ccf.org/NTAT.

Supporting science

In 2023, the E. L. Wiegand Foundation focused a gift for the WAM Prevention Center at Cleveland Clinic and four years of funding — recognized as a term chair — for its director, Dr. Caldwell, to expand work on sex-based differences in Alzheimer’s disease.



Sex-Specific Differences May Help Explain Why **MORE WOMEN DEVELOP ALZHEIMER'S DISEASE**

Cleveland Clinic researchers have found that differences in brain immunometabolism — the interactions between the immune system and the ways cells create energy — may contribute to women's increased risk for Alzheimer's disease.

The findings, published in *Alzheimer's and Dementia*, offer important insight into developing sex-specific treatment and prevention options for Alzheimer's disease, the sixth-leading cause of death in the United States.



Dr. Jessica Caldwell ^

PATIENT BRAIN SAMPLES YIELD CLUES

Our immune systems depend on communication between different cell types in our bodies, which are fueled by energy created from unique metabolic processes. Given that sex influences both the immune system and metabolic process, the study aimed to identify how all these individual factors influence one another to contribute to Alzheimer's disease.

A team of researchers in Cleveland Clinic's Lerner Research Institute and doctors at the Lou Ruvo Center for Brain Health in Ohio and Nevada analyzed brain samples and publicly available sequencing data obtained from 469 Alzheimer's patients of both sexes. They looked for changes in gene expression in immune function, cellular metabolism and communication between brain cells.

They found sex-specific differences in all three areas, with a notable difference in microglia: immune cells in the brain. Changes in microglia were greater in brains of female patients compared with males.

"A WOMAN'S HEALTH ISSUE"

"Women are more likely to develop Alzheimer's disease and experience faster cognitive decline compared to their male counterparts. These sex differences should be accounted for when designing medications and conducting clinical trials," says Feixiong Cheng, PhD, associate staff at Cleveland

Clinic's Genomic Medicine Institute and lead author of the study paper. "These findings build on our knowledge of each part of the systems that play into Alzheimer's and are critical to determining appropriate treatments."

At its core, "Alzheimer's disease is a woman's health issue. To address it, we must understand how biological sex contributes to the underpinnings of this disease," says Jessica Caldwell, PhD, director of the Women's Alzheimer's Movement (WAM) Prevention Center at Cleveland Clinic and a co-author on the paper. "These findings confirm that we need to look at sex differences in the way the body and brain systems communicate to be able to truly offer women personalized care. We look forward to continuing this research."

This study was funded in part by a grant from the National Institutes of Health (R01AG084250) and is part of an ongoing effort between Cleveland Clinic and WAM to further understand the link between sex and all neurodegenerative conditions.

If you're a woman or gender-diverse person age 30-60 with a family history of Alzheimer's disease, contact the WAM Prevention Center to start your risk-reduction journey: 702.483.6000 or clevelandclinic.org/WAMprevention



HERE, THE BEST MINDS ARE WORKING FOR THE HEALTH OF YOURS.

At Cleveland Clinic Lou Ruvo Center for Brain Health in Las Vegas, leaders in neurology come together to develop more effective treatments for Alzheimer's disease and related dementias, multiple sclerosis, and Parkinson's disease and other movement disorders. Since 2009, our team of renowned doctors and researchers has conducted more than 110 studies and clinical trials, leading to seven new FDA-approved therapies.

More than a doctor's office, the center is the first in Nevada to offer comprehensive, specialized neurological care. We provide deep clinical expertise, neurorehabilitation, imaging, and no-cost education and caregiver services — all backed by one of the nation's top hospitals.

For groundbreaking research. For innovative treatments. For every care in the world.

Learn more about specialized neurological care right here in our community: ClevelandClinic.org/Nevada

Honor Wall Preserves the MEMORY OF PERSON WITH ALZHEIMER'S DISEASE

Allan Hanssen would forget his computer and lose his phone, which happens to all of us now and then, but then he started getting lost going to familiar places and having trouble calculating a tip on a dinner bill, remembers his wife, Lynn: “That’s when it clicked that something was wrong with my husband.”

Allan Hanssen's mom had early-onset Alzheimer's disease so, when he started showing those symptoms, “I was terrified, actually really terrified, and he was, too,” says Lynn.

A FRUSTRATING SEARCH FOR ANSWERS

Allan had been seeking care outside Nevada, where he lived at the time, but to no avail.

“For three years, we were told it was depression, but I knew that wasn't it,” Lynn recalls.

In 2019, after Allan lost his job, the couple came to Cleveland Clinic Lou Ruvo Center for Brain Health seeking a definitive answer. They got it: early-onset Alzheimer's disease.

“Friends, family and even doctors elsewhere looked at this vibrant 57-year-old man and couldn't understand the diagnosis, until they

would ask his date of birth or where he lived,” says Lynn. “That's when it became apparent.”

FINDING PEACE AND ACCEPTANCE

Early-onset Alzheimer's is a disease that “takes people out during the prime of their lives,” Lynn notes. Allan's diagnosis brought up conversations the couple had never had before.

“That's where health psychologist and family caregiving expert Dr. Lucille Carriere was instrumental in helping us navigate the journey,” says Lynn.

“The support we both got at the Lou Ruvo Center for Brain Health was priceless,” Lynn adds. “It made a huge difference. I became aware of exactly what Allan wanted and how I could help him as his care partner. Through it all, he said he didn't want to be a burden to me, and he never was. We loved him.”



“Allan and I would pass the Honor Wall each time we went to the Lou Ruvo Center for Brain Health, where we knew we would get answers, understanding and compassion. In a weird way, the center was our happy place,” says Lynn Hanssen left, pictured here with Julia Hanssen and Michael Yaeger.

“The first thing that I thought about after Allan passed in September 2023 was that I wanted him on that Honor Wall, and I wanted to make a contribution to the Cleveland Clinic Lou Ruvo Center for Brain Health because it saved us.”



Group Music Therapy: A FULL-BRAIN WORKOUT AND MORE FOR PEOPLE WITH MEMORY LOSS

Jeanne Arnoldy participates in Mindful Musicking, a group music therapy program at Cleveland Clinic Lou Ruvo Center for Brain Health, with her daughter, Kate Arnoldy-Marshment. Recently, the women also joined a new group, Rhythmic Rehabilitation, which Jeanne finds helpful for managing her multiple sclerosis and cognitive decline.

In fact, says music therapist Julie Renato, MM, LPMT, MT-BC, “music resonates with us, and our bodies naturally move to a beat. It’s due to how we process rhythm. Music helps organize thoughts and movement in our brain, telling the body when and how to move.”

RECALLING MEMORIES

“Everyone knows all the words to the songs,” says Kate, who enjoys participating alongside fellow caregivers and people with memory loss. Her mother “lights up during music therapy, and the sessions are beneficial to

both of us, because it’s our time away from stress.”

Active engagement in music can provide a full-brain workout, optimizing cognitive function, which can lead to improved mood, increased access to long-term memories and reminiscence.

“The program has brought such unexpected joy to our lives,” says Kate. “I have so much gratitude for everything the Lou Ruvo Center for Brain Health has done for us, but especially the music therapy.”



^ Jeanne Arnoldy, left, and daughter Kate enjoy musicking.

The benefits of group music therapy

It's important to be part of a community, to share experiences and keep physically and cognitively active. Led by a board-certified therapist, our group music therapy can offer cognitive stimulation, social interaction, memory support, improved mood, increased physical activity and more.

Our programs include:

- **Virtual Therapeutic Music for Brain Health — Building Community Through Song:** A place for friends to connect online through music and song.
- **Rhythmic Rehabilitation:** Music and exercise come together to facilitate movement and fun in this class, taught by a music therapist in collaboration with neurorehabilitation therapists.
- **Mindful Musicking — Group Therapy for Individuals With Memory Loss:** Engage in “musicking” by moving, singing, playing instruments and actively listening, with opportunity throughout to exercise cognition and interact with others.

Thanks to generous donor support, our group music therapy program is available at no cost to anyone in the community. See the schedule and register for group music therapy at clevelandclinic.org/NevadaEvents or contact us at 216.769.0230

INDIVIDUAL MUSIC THERAPY

Limited one-on-one sessions are also available with our board-certified music therapist, Julie Renato. To obtain a referral, contact your Cleveland Clinic neurology provider via MyChart or call 702.483.6000.

< Music therapist Julie Renato, standing



Is Good Sleep ONLY A DREAM WITH DEMENTIA?

Caring for someone with dementia can be hard enough. It can be even harder if your loved one lacks a regular sleep pattern and needs around-the-clock care. This can also disrupt your sleep quality as a caregiver.

“Sleep disturbances are common in dementia,” says clinical health psychologist Lucille Carriere, PhD, Angie Ruvo Endowed Caregiving Chair at Cleveland Clinic Lou Ruvo Center for Brain Health. “Poor sleep is a top reason why caregivers consider moving their loved one into a memory care facility.”

Sleep issues vary depending on the individual, type of dementia and disease stage. In general, the likelihood of a person with dementia experiencing sleep disturbances increases as the disease progresses. Illness, pain and medications can also impact sleep.

WHY DOES DEMENTIA AFFECT SLEEP?

Healthcare providers aren't sure exactly what causes sleep disturbances in people with dementia but multiple factors can contribute, including:

- **Brain changes:** The underlying disease or pathology causing dementia can affect the areas of the brain that control the body's internal clock. People with dementia may also produce less melatonin, a hormone that helps promote sleep.
- **Behavioral changes:** The behavioral symptoms of dementia can interfere with sleep. Some people with dementia, including Alzheimer's disease, experience a syndrome called sundowning.

“Sundowning causes confusion and restlessness in the late afternoon and evening,” says Dr. Carriere. “It can make preparing for bedtime and falling asleep very difficult.”

YOU'RE NOT ALONE

It's challenging to manage nighttime disruptions and worries over a loved one's safety while also providing care and support during the day. Over the long term, juggling both can be unsustainable and lead to burnout and sleep deprivation in caregivers.

If your loved one is not getting adequate sleep, Dr. Carriere recommends seeking help from their medical team. Among the potential resources for your loved one:

- Your neurology team can help manage sundowning, assess medications and recommend behavioral strategies.
- A clinical psychologist or sleep psychologist can address specific behaviors and develop an action plan. Ask your provider for a referral or find a professional in your area through the Society of Behavioral Sleep Medicine or the Board of Behavioral Sleep Medicine.
- An occupational therapist can help you establish daily routines and activities to improve your loved one's chances for a better night's sleep, as well as provide sleep hygiene recommendations.

And think about your self-care. Can you bring someone in during the evening or night so you can rest? Getting the help you need can improve your well being. It can also keep your loved one at home longer — a goal for many families.

People with dementia can experience different types of sleep problems, including:

- Having difficulty falling and staying asleep.
- Sleeping too much during the day.
- Being awake at night.
- Having trouble distinguishing day from night.
- Waking up in the night confused, fearful, anxious or wandering.

Support for better sleep

C. Craig Karrasch, DPM, and Mark Knobel, trustees of the Thelma B. & Thomas P. Hart Foundation, were intrigued by this program.

“We chose to support sleep education among care partners because we understand how essential sleep is to overall health and well-being, and how necessary self-care is to enabling better care of others.”

– Mark Knobel



Six tips for a good night's sleep with dementia

Lack of sleep can magnify dementia-related behavioral, cognitive (thinking) and emotional symptoms. But a good night's sleep can be within reach for you and your loved one. Helping someone with dementia to get enough rest may involve changing their habits or environment.

Need help managing sleep and dementia? Send your neurology team at the Lou Ruvo Center for Brain Health a message via MyChart or contact us at 702.483.6000.



Continue the story online:
health.clevelandclinic.org/dementia-and-sleep

1. SET ROUTINE SLEEP AND WAKE TIMES

Going to bed and waking up at the same time every time can help maintain a consistent sleep schedule. It also provides cues that can reduce day-night confusion.

2. CREATE A CALMING BEDTIME ROUTINE

Reducing stimulation before bed and in the sleep environment can make it easier to fall and stay asleep:

- Cue bedtime with soothing activities like a bath, massage or gentle music.
- Reduce stimulation by avoiding caffeine late in the day and turning off electronic devices an hour or so before bedtime.
- Provide a quiet, relaxing bedroom. If you can't reduce sound, a white noise machine might help.

3. LIMIT NAPPING

You may not be able to cut out daytime napping entirely. If naps help your loved one function better, try limiting the length of the nap. Avoid naps in late afternoon or evening.

4. ENCOURAGE ACTIVITY

Physical and social activities can benefit sleep and overall health. Getting outside or spending time in a sunny window can also help people with dementia distinguish day from night.

5. ENSURE A SAFE ENVIRONMENT

For people with dementia who wander during the night, safety is a top concern. Dr. Carriere recommends a range of strategies to prevent wandering:

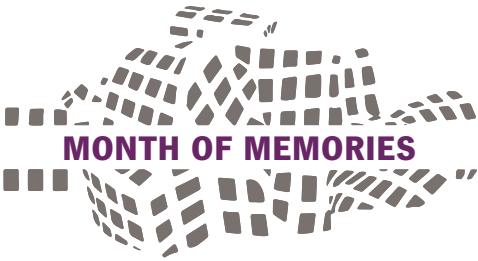
- If your loved one is restless, offer reassurance and refocus attention to enjoyable activities.
- Attend to basic needs such as toileting and hydration before bed.
- Keep keys, coats and hats out of sight.
- Install door alarms and locks.
- Secure exterior doors and use safety covers on doorknobs.

6. CHECK MEDICATIONS

Certain medications can cause agitation or alertness in people with dementia. A healthcare provider can review medications and adjust as needed to reduce these effects.

Finally, be vigilant about medications your loved one receives in the hospital. When in doubt, talk to the healthcare team about potential side effects.

What is MONTH OF MEMORIES?



Month of Memories is an annual opportunity for our community to support Cleveland Clinic Lou Ruvo Center for Brain Health while shopping and dining at local businesses throughout November.

Together, we shine an important light on National Alzheimer’s Disease and Family Caregiver Awareness Month while raising funds for the center to provide educational, therapeutic and support programming at no cost to Las Vegas families.

PARTICIPANT PROFILE

Starburst Parlor aims to keep memories alive for family and community

Owner Jill Shlesinger’s love of baking was inspired by her late grandmother, Helen, and it’s why photos of Helen now hang on the walls of Starburst Parlor in the Las Vegas Medical District.

Helen died in 2009 after a decade-long struggle with Alzheimer’s disease. During that time, Jill witnessed the far-reaching impact dementia has on families. Jill’s mother, Barbara, who now helps run the bakery, was Helen’s full-time caregiver.



^ Jill Shlesinger, left, with her mother Barbara at Starburst Parlor

To honor her grandmother and support caregivers like her mom, Jill decided Starburst Parlor would participate in Month of Memories in 2023. The bakery donated a portion of sales from its popular milk tea to help fund the Lou Ruvo Center for Brain Health’s caregiver support programs that Jill and her mother wish had existed during their time as family caregivers.

2023 EVENT HIGHLIGHTS

► Increased participating businesses by nearly

100%
from 2022.

► Secured **three in-studios TV news appearances and features** in *Vegas Magazine* and *Las Vegas Review-Journal* to get the word out to businesses and consumers alike.

THANK YOU TO PARTICIPATING BUSINESSES:

- Americana
- Atomic Liquors
- Bin 702
- Bottiglia Cucina & Enoteca
- Carson Kitchen
- Crazy Pita
- D'annata Boutique
- Delmonico Steakhouse
- Ellis Island/Village Pubs
- Emeril’s New Orleans Fish House
- Fifth Avenue Restaurant Group
-Trattoria Reggiano
- Kona Grill
- La Neta
- Lotus of Siam - 2 locations
- Mama Chai’s
- Mas Por Favor Taqueria y Tequila
- Mott 32
- Naxos Taverna
- S Bar
- Servehzah
- Starburst Parlor
- STK
- The Golden Tiki
- Therapy



If you know of a business that might like to participate in Month of Memories this November, please contact us at specialevents@keepmemoryalive.org or 702.263.9797.

KEEP MEMORY ALIVE



Cleveland Clinic

Lou Ruvo Center for Brain Health



Mark your calendars for a one-day only spectacular event!

RODEO

**Honoring
Kern Schumacher**
with the Keep Memory Alive
COMMUNITY LEADERSHIP AWARD

Bulls, Bucks, Barrels & BBQ • A-List Entertainment

SAVE THE DATE

SATURDAY, JUNE 29, 2024 Lake Tahoe | Glenbrook, NV

For more information, sponsorship opportunities, or to purchase tickets: 702.263.9797 or keepmemoryalive.org/rodeo

**Thank You to
Our Sponsors**

At the time of printing

ELDORADO
HOTEL · CASINO · RENO



Sg SOUTHERN GLAZER'S
WINE, SPIRITS & BEER
OF NEVADA

Proceeds benefit Cleveland Clinic Lou Ruvo Center for Brain Health
Alzheimer's | Huntington's | Parkinson's
Multiple System Atrophy | Multiple Sclerosis

Visitor Photo Gallery



John Fisher, Owner of the Oakland A's, with Larry Ruvo



(L-R): Michael Severino, Tony Vericella and Barry Shier



Michael "Rod" Rodriguez



Steven Krein and StartUp Health colleagues



Carol and Joel Lubritz



Helga Caggiano flanked by Malinda and Rolf Maile



(L-R): Dr. Dylan Wint, Les Krifaton, and Tom Demore



Janet Uthman Honor Wall Unveiling with Family



Annette Van Dyck in pink with guests

∨ (L to R) Max Verstappen, Sergio Peréz, and Charles Leclerc toast their Formula 1 victories with Ferrari Trento



WINNERS' TOAST BENEFITS KEEP MEMORY ALIVE

When the Formula 1® Heineken Silver Las Vegas Grand Prix roared into Las Vegas in November, the corks were popping and the bubbles were flowing as Ferrari Trento, the Official Toast of Formula 1®, brought a touch of Italian style to the celebrations.

An estimated 40,000 bottles of Ferrari Trento were opened throughout the three-day race period across F1® hospitality areas and Las Vegas resorts, bars and restaurants.

Yet, one bottle stood out: The Formula 1® Heineken Silver Las Vegas Grand Prix Ferrari Trento Podium Jeroboam was signed by the three winning drivers, Max Verstappen, Sergio Peréz, and Charles Leclerc, and was auctioned off on F1® Authentics, the home of official F1 memorabilia, to benefit Keep Memory Alive.

We thank Ferrari Trento and the winning bidder for their support.



The F1 logo, FORMULA 1, GRAND PRIX and related marks are trademarks of Formula One Licensing B.V. a Formula 1 company. All rights reserved.

Raising Funds ‘My Way’ TO KEEP MEMORY ALIVE

Guests eagerly peruse the auction items in the days leading up to the annual Power of Love® gala, planning their bids on over-the-top experiences, many of which can't be bought anywhere other than through this gala. These highly-anticipated items are a key component of the evening's festivities, which raise funds for Cleveland Clinic Lou Ruvo Center for Brain Health.

At the 2023 gala, the Carano and Preger families won two of the most coveted auction prizes.

In September, the couples started with a private dinner for 20 at Gelila and Chef Wolfgang Puck's home, which Eleanor Preger describes as "beautiful, like an art gallery."

"I loved when Wolfgang said 'Let me show you my kitchen,'" gushed Lamise Carano.

Glenn Carano added, "When I went into the spacious kitchen and saw five chefs preparing dinner for 20, that was a big 'wow!'"

Paul Anka was the evening's surprise guest. He sang a couple verses of "My Way," which he originally wrote for Frank Sinatra. However, for this performance, he altered the lyrics to include mention of those present.



^ Lamise Carano, left, with Eleanor Preger and Paul Anka



^ Glenn and Lamise Carano with the evening's host, Chef Wolfgang Puck, right, in his home kitchen

*With zeal to help and heal,
Larry and Camille,*

Yours is no shy way.

*In plain, your work's our gain,
you make "memory lane"*

A hopeful highway.

*With each of you we've shared
life's best.*

Michelle and I are feeling blessed

To help Keep Memory Alive

Lou Ruvo's legacy will thrive.

*Old friends and new,
this is my cue,*

To toast you my way!

The name "Carano" stakes its claim

*With resorts and football,
you've "got game"*

On every field you've surely scored

Reno's star couple, so adored.

*Glenn and Lamise,
you did it your way!*



^ L-R: Camille Ruvo, Larry Ruvo, Lamise Carano and Gelila Puck

*Serene, this alfresco scene,
with Wolfgang's cuisine*

Dinner 'round seven

*Each bite we had tonight,
transcends delight*


It's Puck-ing heaven.

*And while Gelila your style,
sure makes us smile,
in your couture way*

*Spago's a jewel, but this
backyard's so cool,
we love dining your way.*



^ L-R: Eleanor and Bob Preger with Kari and Sammy Hagar

KEEP MEMORY ALIVE &  Cleveland Clinic
PRESENT

POWER OF LOVE

GALA 2024

DON'T MISS YOUR OPPORTUNITY TO BID ON ONE-OF-A-KIND AUCTION ITEMS

You are the power behind our promise to families and to our community.

Join us on Friday, May 10.
Tickets and information are at keepmemoryalive.org/POLnt or 702.263.9797

And if the dinner wasn't enough, the next day, the couples enjoyed a cruise out of Marina Del Rey, California, on a private yacht with legendary rocker Sammy Hagar.

While cruising around, Sammy sang a few songs. The group enjoyed dinner and fine wine. "We shared sunset, desert and some laughs, dancing with Sammy, who sang a bunch of acoustic songs," says Eleanor. "Camille and Larry Ruvo know how to give you a great time. Everyone left smiling and we're still talking about it months later."

Recognized for Excellence

In recent months, Cleveland Clinic Lou Ruvo Center for Brain Health employees have been honored by their community, peers and professional associations for clinical excellence and leadership in their fields.

We celebrate their accomplishments.

Certified Dementia Practitioner

(National Council of Certified Dementia Practitioners, December 2023)

Tiarra Atkinson, LCSW, CDP

Lucille Carriere, PhD, CDP

Stacy James, RN, CDP

Kayla Kotake, PT, DPT, CDP

Julie Renato, MM, LPMT, MT-BC, CDP

Jessica Valle, RN, ONC, CDP

Associate Editor

(*Alzheimer's Research and Therapy*, December 2023) and (*Alzheimer's & Dementia: Translational Research and Clinical Intervention*, September 2023)

Jessica Caldwell, PhD

Multiple Sclerosis Certified Nurse

(Consortium of Multiple Sclerosis Centers, November 2023)

Erin Wilkinson, MSN, APRN-BC, MSCN

President-Elect

(Public Relations Society of America, Las Vegas Valley Chapter, November 2023)

MacKenzie Ruta, APR

Graduate, Women Leading in Neurology Program

(American Academy of Neurology, September 2023)

Carrie M. Hersh, DO, MSc

Top Doctors

(KNPR's *Desert Companion*, August 2023)

Charles Bernick, MD

Le Hua, MD, FAAN

Zoltan Mari, MD, FAAN

Dylan Wint, MD

Board-Certified Clinical Specialist in Neurologic Physical Therapy

(American Board of Physical Therapy Specialists, July 2023)

Kameron Jacobson, PT, DPT, NCS



Editor, Multiple Sclerosis

(*Neurologic Clinics*, February 2024)

Carrie M. Hersh, DO, MSc, was selected among her peers as editor of a dedicated multiple sclerosis (MS) issue featuring a collection of articles by renowned experts exploring advancements in the field, including emerging themes around diagnostics, special patient populations and treatments.

In her preface, Dr. Hersh encouraged readers to “challenge existing paradigms and contemplate the future of multiple sclerosis research, care, and support.”

She writes: “Together, we can advance the frontiers of knowledge, unravel the mysteries of MS, and make meaningful strides toward a future where persons with MS can live life to the fullest. The future of person-centered MS care is as bright as ever. Let the exploration begin.”

Funding Innovation

Lou Ruvo Center for Brain Health clinician-scientists have earned funding to pursue novel research.

Pilot Grant Program

(Cleveland Clinic Foundation and Cleveland Clinic Rehabilitation Hospital, December 2023)

Funding to study whether the use of a novel modality, Blood Flow Restriction Training, can be effective in augmenting strength training programs, facilitating greater benefit for people with multiple sclerosis.

Michael Gevertzman, PT, DPT, Principal Investigator

Carrie M. Hersh, DO, MSc, Co-Principal Investigator

Le Hua, MD, Co-Principal Investigator



NIH RF1 grant

(National Institutes of Neurological Disorders and Stroke of the National Institutes of Health, July 2023)

Funding to explore the connection between bacteria in the gut and the brain in Alzheimer's disease and related dementias.

Jessica Caldwell, PhD



∨ Dr. Andrew Bender



Emerging Scientist Award

(Keep Memory Alive, Fall 2023)

The Emerging Scientist Award Program is dedicated to supporting neurological researchers who are pioneering novel projects and investigating disease-altering therapies. Investment in early-career researchers results in a lifetime of return on investment, as the scientists translate their early learning and support into a career of scientific advances.

Given to **Andrew Bender, PhD**, the three-year award funds a project that aims to develop new MRI-based methods for predicting cognitive decline in Alzheimer's disease and related dementias.

888 W. Bonneville Ave.
Las Vegas, NV 89106
Office 702.483.6000

clevelandclinic.org/Nevada



Photo: Denise Truscello

New disease- modifying therapy gives hope for early Alzheimer's disease

YOU CAN GIVE HOPE, TOO.

Story on page 3.